

Amendments to the Claims

Claim 1 (currently amended): A method of producing a cross-linked polymeric support having a multimodal pore structure, ~~which method comprises~~ comprising the steps of:

- (a) providing a degradable initiator molecule;
- (b) providing an organic phase, which comprises said initiator molecule, one or more radically polymerisable monomers and a porogen in a solvent, and an aqueous phase, which comprises a transition metal catalyst;
- (c) forming a suspension of the organic phase and the aqueous phase;
- (d) starting a suspension polymerisation of the organic phase in the aqueous phase by adding a ligand, which co-ordinates to the transition metal in the aqueous phase via at least one atom, to produce a cross-linked polymeric support having a primary pore structure and comprising initiator molecule; and
- (e) subjecting the support obtained from step (d) to degrading conditions to at least partially remove the initiator molecule from within the support to produce a cross-linked polymeric support having a secondary pore structure in addition to the primary pore structure.

Claim 2 (currently amended): ~~A method according to~~ The method of claim 1, wherein the initiator molecule is a macroinitiator.

Claim 3 (currently amended): ~~A method according to claim 1 or 2,~~ The method of claim 1, wherein step (a) comprises to react a compound that comprises at least one

hydroxy group, primary amine group or secondary amine group with an alfa-haloacyl halide.

Claim 4 (currently amended): ~~A method according to~~ The method of claim 3, wherein a hydroxy-functional dendritic polyester is reacted with the alfa-haloacyl halide.

Claim 5 (currently amended): ~~A method according to~~ The method of claim 3, wherein an amino-functional dendritic polyamide is reacted with the alfa-haloacyl halide.

Claim 6 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein in step (d), the organic phase comprises up to about 50%, ~~such as about 30%~~, of the initiator molecule, calculated as weight/weight monomer.

Claim 7 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the monomers are synthetic mono and/or multifunctional monomers, such as styrene and/or divinyl benzene.

Claim 8 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the transition metal is selected from the group ~~that consists~~ consisting of Cu, Ni, Pd, Ru and Fe.

Claim 9 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the ligand comprises one or more N, O, P, S or C atoms that co-ordinated to the transition metal to form a catalyst system.

Claim 10 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the removal according to step (e) is performed under basic or acidic conditions.

Claim 11 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the removal according to step (e) is performed by applying an external agent, ~~such as heat and/or radiation and/or ultrasound.~~

Claim 12 (currently amended): ~~A method of producing~~ The method of claim 1, wherein a cross-linked polymeric support is produced comprising one functionality within a primary pore structure and one functionality within a secondary pore structure, ~~which comprises a method according to any one of the preceding claims~~ and an additional step of selective surface modification of the supports so obtained after step (d) but before step (e).

Claim 13 (currently amended): ~~A method according to~~ The method of claim 12, wherein the surface of the support obtained from step (d) is modified using conditions that have no essential impact on the initiator molecule present in the support.

Claim 14 (currently amended): ~~A method according to any one of the preceding claims,~~ The method of claim 1, wherein the secondary pore size is controlled by the molecular weight of the initiator molecule.

Claim 15 (currently amended): A ~~The method of claim 1, wherein a~~ cross-linked porous polymeric support, ~~which has been produced according to any one of claims 1-14.~~

Claim 16 (currently amended): A ~~polymeric support according to~~ The polymeric support of claim 15, which is comprised of comprising one or more essentially spherical particles having a diameter of about 10 μ m and 250 μ m, wherein the specific surface area is in a range of 150-300 m²/g.

Claim 17 (currently amended): A ~~polymeric support according to~~ The polymeric support of claim 15, which is a monolith.

Claim 18 (currently amended): A ~~polymeric support according to any one of claims 15-17, which comprises~~ The polymeric support of claim 15, comprising functional groups, such as chromatography ligands, coupled to the surface of the primary pores and/or the secondary pores.

Claim 19 (currently amended): ~~Use of a polymeric support according to any one of claims 15-18~~ The use of the polymeric support of claim 15 as a matrix in chromatography.